

Sub A

WHAT IS CLAIMED IS:

1. A method for diagnosing whether a host suffers from a chronic immune disease, said method comprising:

assaying a sample from said host for the presence of at least one low molecular weight RNase L fragment which lacks RNase L activity, to obtain assay results; and

determining whether said host suffers from a chronic immune disease using said assay results;

whereby said host is diagnosed for said chronic immune disease.

10 2. The method according to Claim 1, wherein said chronic immune disease is selected from the group consisting of CFS and MS.

3. The method according to Claim 1, wherein said sample is a blood cell derived sample.

15 4. The method according to Claim 1, wherein said sample is a PBMC derived sample.

5. The method according to Claim 1, wherein said method further comprises assaying 20 said sample for caspase activity.

6. A method of diagnosing chronic immune disease activity in a human subject, said method comprising:

(a) obtaining a sample from said subject;

(b) assaying said sample for: (i) the presence of at least one RNase L fragment which lacks RNase L activity; and (ii) caspase activity; to obtain assay results; and

(c) using said assay results to diagnose chronic immune disease activity in said subject.

7. The method according to Claim 6, wherein said chronic immune disease is selected from the group consisting of CFS and MS.

8. The method according to Claim 6, wherein said sample is a blood derived sample.

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9. The method according to Claim 8, wherein said blood derived sample is derived from PBMCs.

10. The method according to Claim 6, wherein said method is a method of confirming whether said subject suffers from said chronic immune disease.

11. A method for treating a host suffering from a chronic immune disease, said method comprising:

(a) administering to said host an effective amount of an agent that enhances RNase L homodimer activity in said host to treat said host for said chronic immune disease.

12. The method according to Claim 11, wherein said chronic immune disease is selected from the group consisting of CFS and MS.

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13. The method according to Claim 11, wherein said agent is an RNase L cleavage-antagonist.

14. The method according to Claim 11, wherein said agent enhances RNase L expression.

15. The method according to Claim 11, wherein said agent enhances bioactive 25 A production in said host.

16. The method according to Claim 11, wherein said agent RNase L fragment antagonist.

17. The method according to Claim 11, wherein said host is a mammal.

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18. The method according to Claim 17, wherein said mammal is a human.

19. A method for determining the ability of test compound to inhibit RNase L cleavage activity, said method comprising:

10 (a) contacting said test compound with:

- (i) a source of RNase L; and
- (ii) a source of protease specific for RNase L;

(b) determining the effect of said test compound on the production of RNase L fragments.

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20. The method according to Claim 19, wherein said source of RNase L is recombinant.

21. The method according to Claim 19, wherein said source of protease specific for
20 RNase L is a PBMC extract.

22. The method according to Claim 19, wherein said RNase L is labeled.

23. The method according to Claim 19, wherein said determining step comprises
25 identifying the presence of RNase L fragments.

24. A method for determining the ability of test compound to induce apoptosis in an RNaseL fragment comprising cell, said method comprising:

30 (a) contacting said cell with said test compound;

(b) detecting the presence of apoptosis in said cell; and

(c) relating the presence of apoptosis in said cell to the ability of said test compound to induce apoptosis in an RNase L fragment comprising cell.

25. The method according to Claim 24, wherein said cell is a PBMC.

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